Claims

1. An industrial truck, comprising:

a plurality of wheels;

a load lifting system;

a drive system;

a stabilizing device comprising a plurality of wheel load sensors, each connected to an individual wheel and configured to measure a wheel load; and

a monitoring device, wherein the load sensors are connected to the monitoring device which is configured to control or regulate at least one of the load lifting system and the drive system of the truck based on the wheel load sensor data.

2. The industrial truck as claimed in claim 1, wherein the monitoring device is effectively connected with actuator units for at least one of inclination of a lifting mast, adjusting the height of a load, adjusting vehicle speed, adjusting vehicle acceleration, adjusting braking intensity, and adjusting steering angle.

3. The industrial truck as claimed in claim 1, wherein the wheel load sensors are provided on all the wheels of the truck.

4. The industrial truck as claimed in claim 1, wherein the truck includes a front axle and at least one wheel on each side of the front axle of the truck has a wheel bearing with an integrated wheel load sensor.

5. The industrial truck as claimed in claim 1, wherein the monitoring device includes an evaluation unit configured to determine at least one of transverse tipping forces, longitudinal tipping forces, tipping moments, and load weight.

6. The industrial truck as claimed in claim 1, wherein at least two wheels of the truck each have a speed-of-rotation sensor which are connected to the monitoring unit.

7. The industrial truck as claimed in claim 6, wherein each speed-of-rotation sensor is integrated into a wheel bearing.

8. The industrial truck as claimed in claim 1, wherein the monitoring device includes an evaluation unit configured to measure the speed of the truck.

9. The industrial truck as claimed in claim 1, wherein the monitoring device is connected to a display unit for displaying at least one of a load, a load moment, a truck speed, an acceleration, a turning radius, and tipping forces.

10. The industrial truck as claimed in claim 1, wherein the industrial truck is a counterbalanced fork lift truck.

11. The industrial truck as claimed in claim 6, wherein the two wheels with the speed-of-rotation sensors are located on the same axle.

12. The industrial truck as claimed in claim 2, wherein the wheel load sensors are provided on all the wheels of the truck.

13. The industrial truck as claimed in claim 2, wherein at least one wheel on each side of a front axle of the truck has a wheel bearing with an integrated wheel load sensor.

14. The industrial truck as claimed in claim 2, wherein the monitoring device includes an evaluation unit configured to determine at least one of transverse tipping forces, longitudinal tipping forces, tipping movements, and load weight.

15. The industrial truck as claimed in claim 3, wherein the monitoring device includes an evaluation unit configured to determine at least one of transverse tipping forces, longitudinal tipping forces, tipping moments, and load weight.

16. The industrial truck as claimed in claim 4, wherein the monitoring device includes an evaluation unit configured to determine at least one of transverse tipping forces, longitudinal tipping forces, tipping moments, and load weight.

17. The industrial truck as claimed in claim 2, wherein at least two wheels of the truck each have a speed-of-rotation sensor which are connected to the monitoring unit.

18. The industrial truck as claimed in claim 3, wherein at least two wheels of the truck each have a speed-of-rotation sensor which are connected to the monitoring unit.

19. The industrial truck as claimed in claim 4, wherein at least two wheels of the truck each have a speed-of-rotation sensor which are connected to the monitoring unit.

20. A method of stabilizing an industrial truck, comprising the steps of:

providing wheel load sensors to sense the wheel load on at least a portion of the truck wheels;

electronically connecting the wheel load sensors to a monitoring device having an evaluation unit, the monitoring device operationally connected to at least one operational system of the industrial truck;

calculating a tipping force based on the wheel load sensor data; and

controlling the operational system based on the calculated tipping force to counteract the tipping force.